Remarks

Preliminary Matters

Claims 66-75 are presented for reconsideration. Claims 1-65 have been canceled. Claims 66-75 have been added.

The Specification has been amended to correct a grammatical informality. No new matter has been added.

Applicant thanks Examiners Pham and Pruong for the courtesy of a telephonic interview conducted at the USPTO on 1 June 2010 with Applicant's representative, Arthur S. Bickel (Reg. No. 34123). At the interview, Mr. Bickel presented a draft amendment to the claims and explained the differences between the proposed claim and the cited references noted below. The Examiners commented on the relevance of Fig. 2 of Cole and its reference to associating keyword with objects, which is addressed below in the discussion of new claim 66.

Rejections Under 35 U.S.C. § 112

Claim 65 was rejected under 35 U.S.C. § 112, first paragraph. Claim 65 has been canceled, rendering the rejection moot.

Rejections Under 35 U.S.C. § 102

Claim 65 was rejected under 35 U.S.C. § 102(e) as being unpatentable over Cole *et al.*, U.S. Patent No. 6,571,239 (Cole). Claim 65 has been canceled, rendering the rejection moot.

Rejections Under 35 U.S.C. § 103

Claims 37-45 and 56-62 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Prokoph, U.S. Patent Application Publication No. 2002/0091671 (Prokoph) in view of Cole and further in view of Kim *et al.*, U.S. Patent Application Publication No. 2003/0208482 (Kim). Claims 37-45 and 56-62 have been canceled, rendering the rejections moot. However, the cited references are discussed below.

Claim 63 was rejected under 35 U.S.C. § 103 over Prokoph, Cole and Kim further in view of Mittal *et al.*, U.S. Patent Application Publication No. 2004/0261021 (Mittal). Claim 63 has been canceled.

New Claims

Applicant has replaced claims 37-45, 56-63, and 65 by new claims 66-75 in order to more particularly define the invention.

Cole proposes a search technique in which associations between database objects and keywords can be modified in order to maintain an up-to-date classification of the database objects. However Cole differs from the invention claimed in independent claim 66 significantly.

Cole discloses modification of an index of keywords (e.g., Fig. 2, blocks 255, 260). Moreover, modification of a master or auxiliary keyword index is described in detail with respect to Fig. 3 (col. 4, lines 40-53). In contrast, independent claim 66 recites modification of the documents themselves by "adding the respective queries to the identified documents as metadata". As noted in the Inventor's Declaration under Rule 132, previously submitted, embedded metadata of this sort could be discovered by subsequent searches by other users who may subsequently include the language of the metadata in their own queries (this is claimed in Dependent claim 69). As a consequence, highly relevant documents with respect to the queries can be found more quickly. Applicant is unable to find this feature in Cole.

Cole, in Fig. 2, presents step 250 to "associate keywords with objects". Applicant believes that this step as presented in Cole could not encompass the addition of metadata to documents as recited in claim 66. Cole summarizes his invention as providing a method to <u>modify associations between objects in the database and keywords in the index</u>, based on keywords supplied by the user during a search session (col. 2, lines 7-9). Keywords in a Keyword Index 120 are associated with one or more objects in a Repository 115 (col. 3, lines 17-19; Fig. 1). All the operations that Applicant can find in Cole to this end concern updates of various kind to an index or auxiliary index of data objects in the repository, with no change to the data objects (documents), themselves. The modified association is made, not by modifying the data objects, but by linking keywords (of queries) with an identifier of the object and then modifying an index that references the object. Cole states, beginning at col. 3, line 55:

> At the end of the session, the Receiver (105) analyzes the first query into keywords...The Receiver (105) then associates the... keywords (or Boolean expressions) with the object(s) or description(s) of the object(s) chosen by the user. This is done by <u>linking each keyword with the object's id returned by the Search Engine</u> (110) or the Auxiliary Index

(140)... The Receiver (100) passes this association information gathered during the session to the Updating Module (125). Under Alternative A, the Updating Module (125) <u>updates the master Keyword Index</u> (120) with this information. Under Alternative B, it updates the Auxiliary Index (140).

Moreover, Fig. 2 presents logic for <u>deletion</u> of keyword-object associations when the index reaches a maximum size (col. 4, lines 22-23). Claim 66 recites <u>adding</u> queries to documents as metadata.

Kim is directed to improvements in ranking data identified by queries. As the Examiner notes, Kim teaches ranking pages retrieved by searching a database index, and not concerned with facilitating subsequent recovery of the documents by searching modified documents. Modification of Cole by the teachings of Kim would not lead the ordinarily skilled person to achieve the invention claimed in claim 66.

Although the Examiner has cited Prokoph in the rejections under 35 U.S.C. § 103, he has not set forth the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate (MPEP § 706.02(j). Instead, the Examiner has, in one line of the discussion, and only with respect to claim 56 (now canceled), included Prokoph with Cole and Kim as being generally directed to indexing systems for searching for electronic documents. Applicant is assuming that the Examiner maintains his rejection based on rejections made in the Official Action dated 31 July 2009, and did not repeat them in the interest of brevity. Prokoph can be distinguished from the claimed invention in combination with the other references cited by the Examiner. Prokoph discloses a document retrieval indexing technique which is substantially different from the invention claimed in claim 66. As outlined in Fig. 3, Prokoph creates extracts of documents, and indexes the extracts for use by a search engine. Prokoph does not disclose addition of metadata to the documents themselves. A person ordinarily skilled in the art would therefore not follow Prokoph in combination with Cole and Kim to attempt to make the invention claimed in claim 66.

Mittal was cited against claim 63, now canceled. The subject matter of claim 63 is found in new claim 74, directed to differences in the languages of the queries and document collection. Mittal provides for translation of a query from a first language to a second language. However, Mittal does not

disclose addition of metadata to a document collection and its addition to the combination of references cited by the Examiner would not lead to the invention claimed in claim 66.

Support for Amendments

In claim 66, the element "adding the respective queries to the identified documents as metadata" is disclosed at paragraph [0021].

In claim 67, the element "enhancing the document index to include the added queries in the document index" is supported at paragraphs [0022]-[0023].

In claim 69, the element "performing the step of searching a second time responsively to new user queries and using the enhanced document index as the document index" is supported at paragraph [0037].

In claim 71, the element "updating the time stamps" is described in paragraphs [0034]-[0035].

Concluding Matters

Independent claim 66 is patentable over Cole, Prokoph, Kim, and Mittal because these references fail to teach or suggest, as required by independent claim 66 a document retrieval system that includes addition of user queries to search-identified documents as metadata.

Dependent claims not specifically mentioned are believed to be allowable as pending from an allowable base claim.

It is believed that the amendments and remarks presented hereinabove are fully responsive to all the grounds of rejection and objections raised by the Examiner, and that the Application is now in order for allowance.

Applicant thanks the Examiner for his thorough consideration of the Application and appreciates the careful analysis of the art cited therein.

Please charge any fees associated with this response to Deposit Account 09-0468.

Respectfully submitted,

By: _/Suzanne Erez/_____
Suzanne Erez
Reg. No. 46,688
Phone No. 1-888-260-5928

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IBM Corporation
Intellectual Property Law Dept.
P. O. Box 218
Yorktown Heights, New York 10598